

The interior and immediate surroundings of the stone circle were surveyed in May 1985 as part of the more widespread geophysical exploration of the adjacent landscape at Rollright. Both magnetometer and resistivity surveys were made, and the resulting plots are shown on the enclosed plan where an attempt has also been made to compare the location of both surface features and geophysical anomalies.

Magnetometer survey:

Magnetometer traverses were made at 0.5 m intervals across the site, and the resulting traces show considerable magnetic disturbance both inside and outside the circle, interspersed amongst areas of relative inactivity.

Within the circle, the most conspicuous anomalies occur near the centre, and four of these overlap respectively with four very slight surface mounds identified by the OAU surface contour survey. In each case the magnetic anomaly is some 2 m to the SE of its nearest mound. It is possible that infilled pits are responsible for the anomalies, and that the slight and subdued mounds are all that remain of their upcasts. The central area of the circle has been the scene of many small bonfires and, no doubt, exploratory diggings also. The anomalies tend to be elongated in the direction of the mounds, which could therefore represent material scooped from pits which have subsequently become backfilled with the relatively magnetic topsoil. A burnt patch near the centre of the circle showed considerable magnetic susceptibility enhancement compared with soil away from the middle (216×10^{-8} SI/kg in contrast to 82×10^{-8} SI/kg) : although a shallow surface layer of such magnetically enhanced soil does not generate a substantial anomaly, its infilling of even a small pit would produce anomalies such as those seen here.

Away from the centre of the circle, other anomalies have been indicated on the plan, and may be of significance although none are particularly clearly defined or constitute part of any obvious pattern. An area of magnetic enhancement and noise SE of the centre and running up to the circle perimeter, in particular, may represent human activity. There is unfortunately disturbance from extraneous iron objects here, and elsewhere, and the fence close to the southern edge of the circle has caused considerable interference. Background disturbance is present outside the circle also, and although some anomalies in the NE of the survey area may be of archaeological origin, these results are ambiguous.

Resistivity survey:

Resistivity readings were taken at 0.5 m intervals across the site using a 0.5 m Twin Electrode configuration with a Geoscan RM4 meter. The data has been computer processed, and both a trace plot and a contour plot are shown on the plan. The plots show resistivity values undulating broadly over the site to no apparent pattern, and with occasional peaks of high resistance occurring both inside and outside the circle. These areas of high resistance have been shown on the interpretative plan D where they appear unrelated to magnetic anomalies or surface features. They may perhaps be explained by the presence of buried stone, large or small, or more likely by the relative preservation of bedrock close to the surface. Readings close to the stones themselves are disturbed, and higher values are a response to the base of the monoliths or their packing material. The perimeter of the circle is set within a ring of discernibly undisturbed readings which may be a reflection of soil compaction by visitors walking around the circle.

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Conclusions:

The most distinct evidence for archaeological features produced by these surveys is the group of four magnetic anomalies around the middle of the circle. These may represent pits related in some way to local ground surface undulations and the presence of localized burning. There is no evidence from the survey for when these features were made or when the associated activity took place.

Other magnetic anomalies within and without the circle may also be of artificial origin but there may be some confusion with both natural features and superficial iron debris. No encircling ditch has been detected. The soils at Kollright have been shown to be particularly sensitive to magnetic enhancement, and anomalies from Iron Age features to the north are of a much greater scale than those seen here, suggesting that the latter are relatively shallow and slight.

The resistivity survey reveals a picture which, although it may contain evidence for buried stones or rubble, cannot be shown not to be natural in origin. A more widespread survey, to act as a control, would be required to substantiate this.

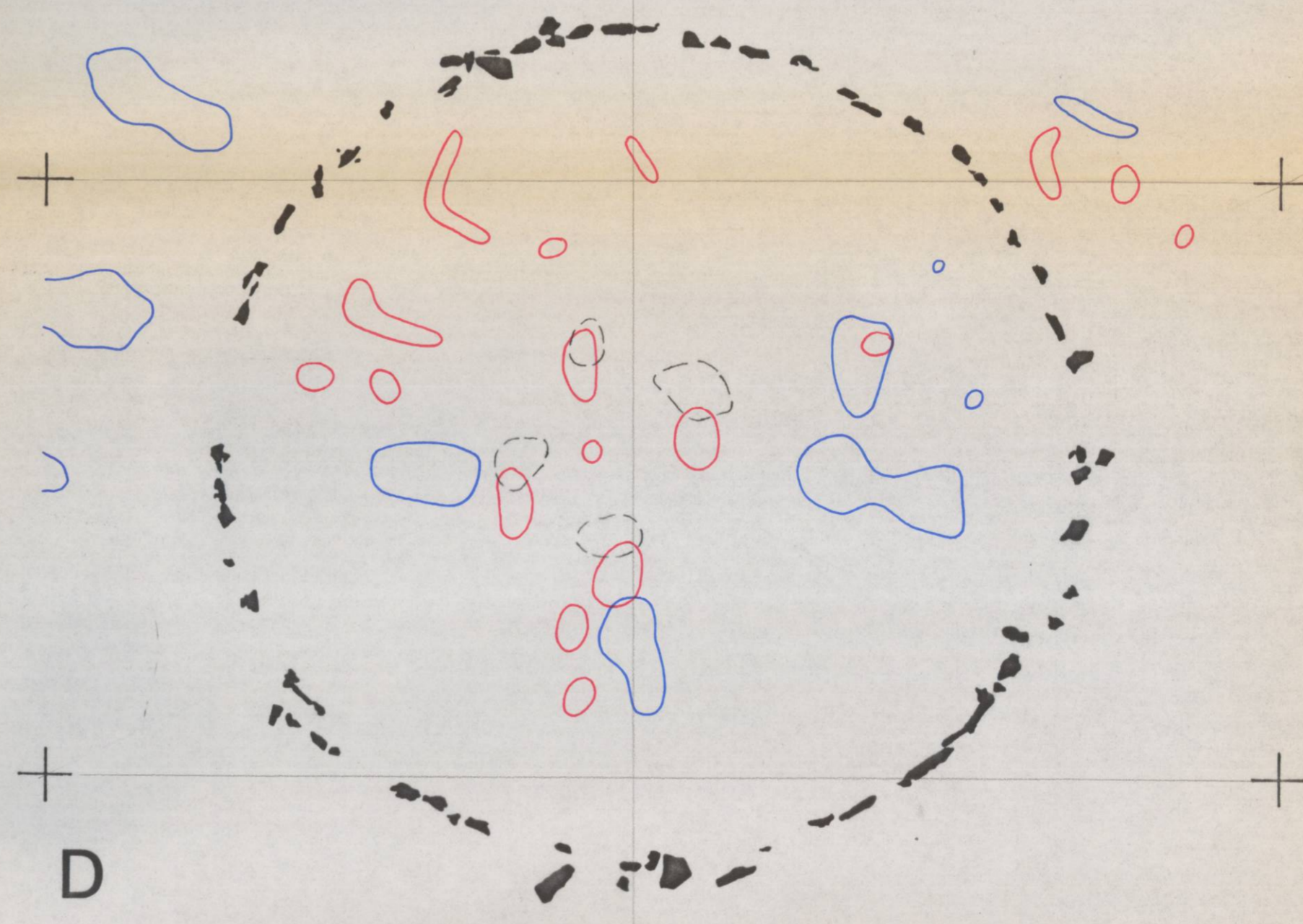
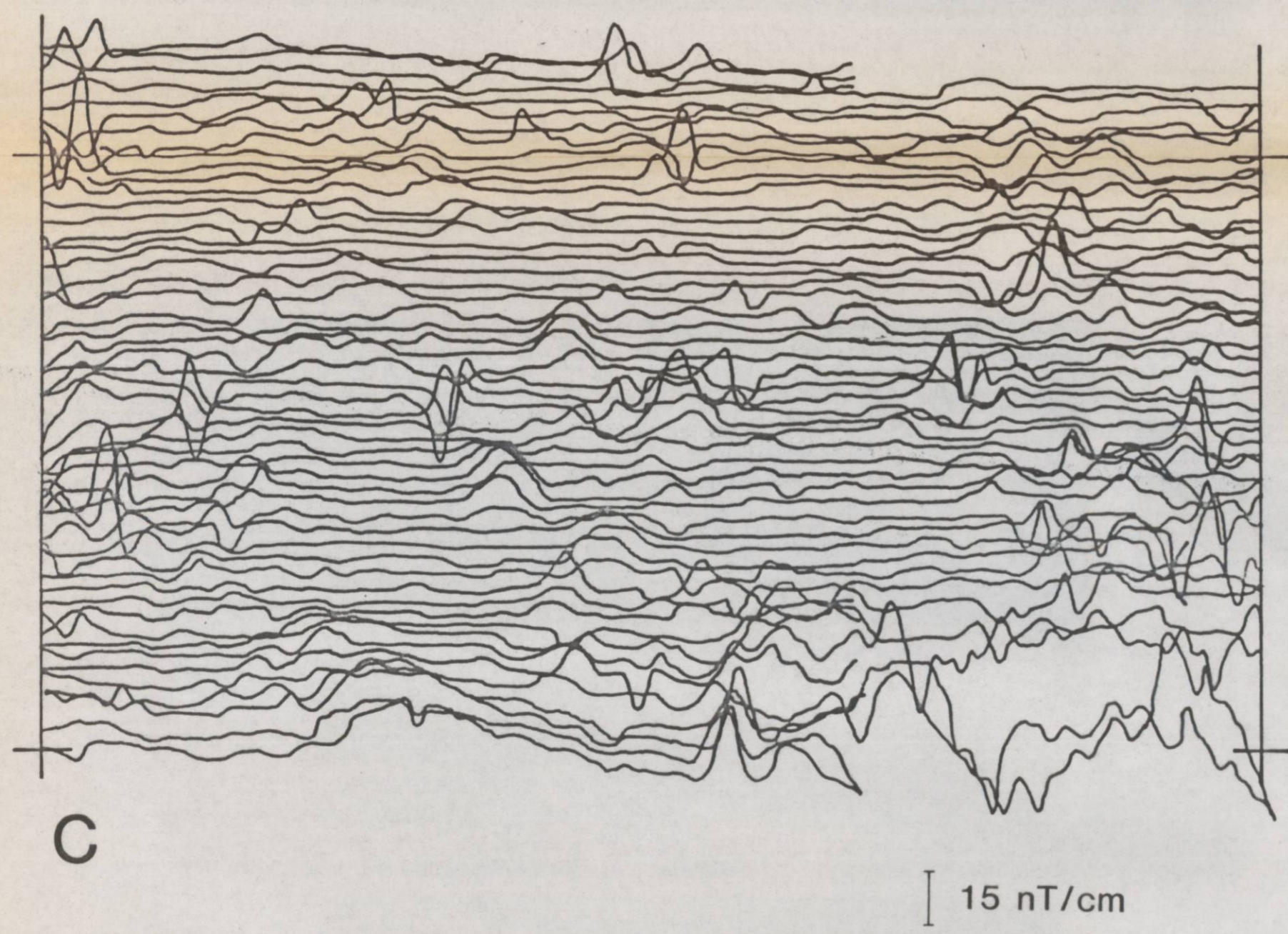
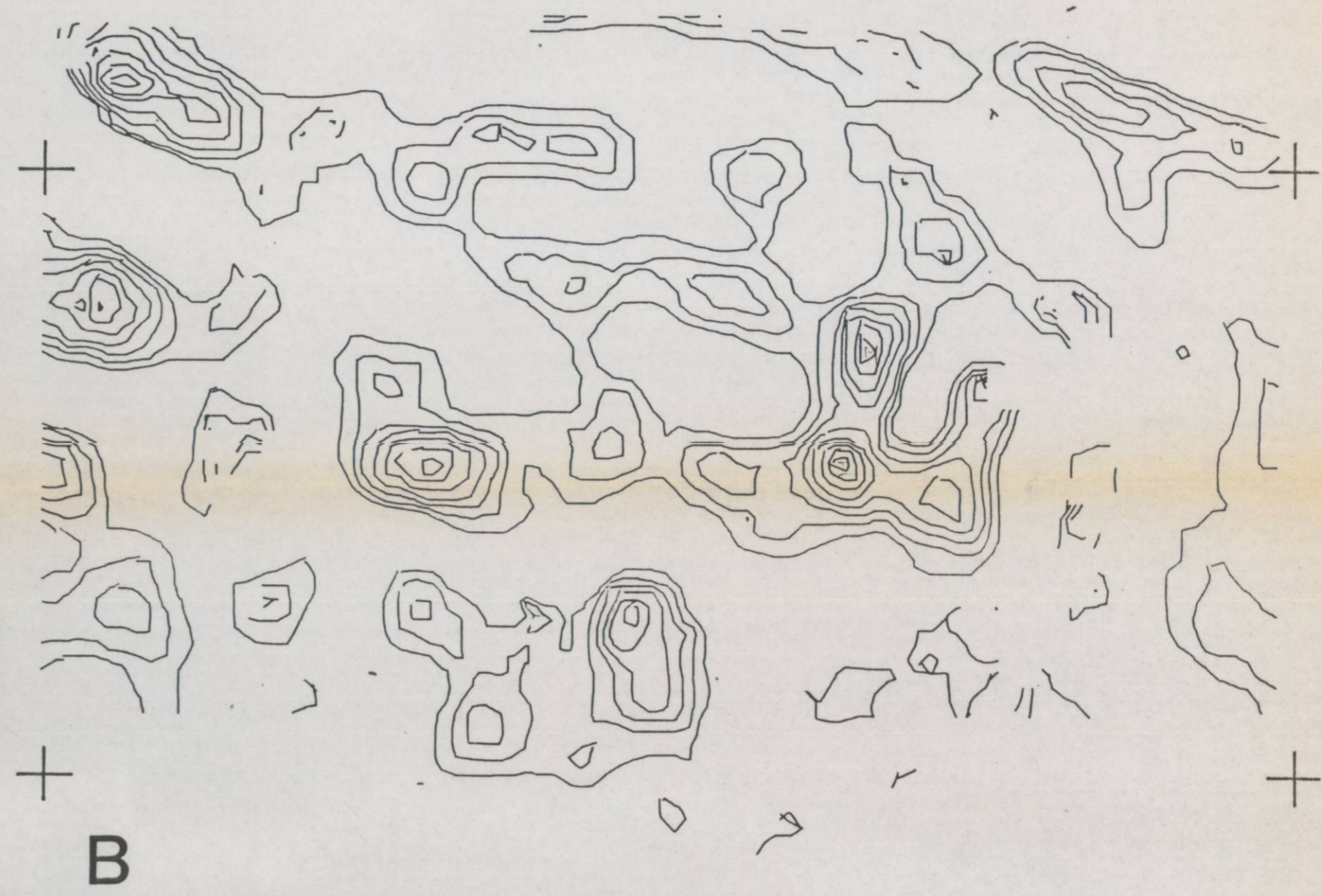
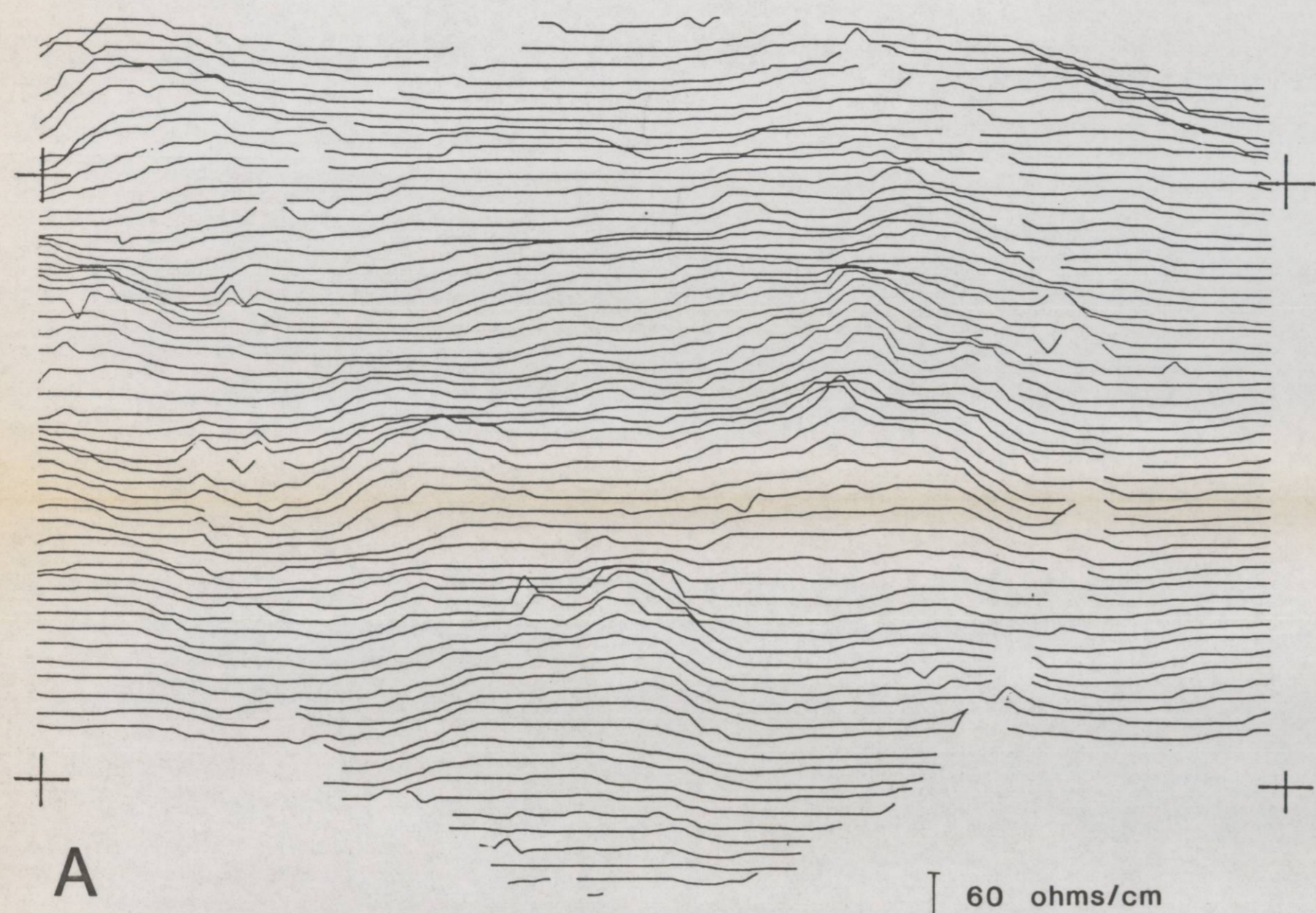
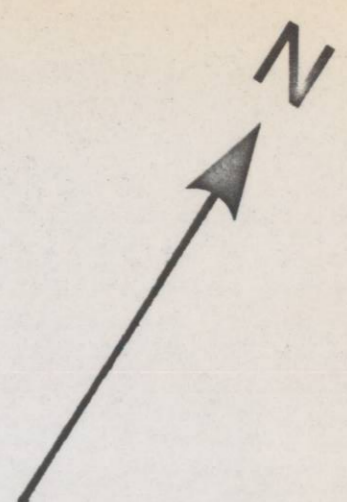
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ROLLRIGHT STONE CIRCLE, OXON.

GEOPHYSICAL SURVEY, 1985



- A resistivity survey : trace plot
smoothed and filtered data
- B resistivity survey : contour plot
smoothed and filtered data, positive anomalies,
mean to maximum, contour interval : 10 ohms
- C magnetometer survey
- D interpretation

- magnetic anomalies
- resistivity anomalies > 30 ohms
- surface features

1 : 200